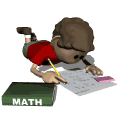
***Melrose Public Schools***



*Math*

*Fluency*

*Every grade has specific math facts that the students must know automatically.*

*Second grade students are expected to fluently add and*

*subtract within 100 (two-digit numbers). They solve*

*problems within 1000, using visuals/ manipulatives and*

*strategies that are based on their understanding of place*

*value, the relationship between addition and subtraction,*

*and properties of operations.*

*By the end of second grade students are expected to know from*

*memory all sums of two one-digit*

*numbers.*

***Grade Two Mathematics Program***

Your child will be using Pearson EnVision Math this year. The resources fully support the Massachusetts Mathematics Curriculum Frameworks.

Pearson has a website, [www.pearsonsuccessnet.com](http://www.pearsonsuccessnet.com), which can be accessed for additional information about these materials. Each student will receive a username and password and will have full access to their grade level math book and all program materials online. Teachers are able to assign homework and review sheets through this website. For technological assistance, you can reach the Pearson Tech Help Line at 1-800-234-5832 or contact them through the website above.

EnVision Math is a math program that balances skill instruction with instruction that develops conceptual understanding through problem-based interactive and visual learning. This research-based program is aligned with Massachusetts Mathematics Curriculum Frameworks.

The program’s philosophy has 3 key focal points:

* Conceptual Development- Interactive Learning + Visual Learning
* Ongoing Assessment, Diagnosis, and Intervention
* Differentiated Instruction

Topics are organized around math strands focusing on the Big Ideas and Essential Understandings of math. The Big Ideas are the conceptual underpinnings of the program and the glue that provides conceptual cohesion across lessons, topics, grades, and standards. Big Ideas connect Essential Understandings which occur within and across lessons.

The Massachusetts Math Curriculum Frameworks are divided into content and practice standards. The content standards outline the math concepts students should know by the end of the year. The practice standards are the mathematical habits of mind that students will develop as they go through the grades.

**Units of Study**

The following is a list of topics which provide a quick synopsis of concepts to be explored this year. As you begin to see your student’s work as it arrives home, and as it is shared when you visit the classroom, you will have a better understanding of the depth and quality of the concepts your child will be learning.

|  |
| --- |
| 1. Understanding Addition and Subtraction 2. Addition Strategies 3. Subtraction Strategies 4. Working with Equal Groups 5. Place Value to 100 6. Mental Addition 7. Mental Subtraction 8. Adding Two-Digit Numbers 9. Subtracting Two-Digit Numbers 10. Place Value to 1,000 11. Three-Digit Addition and Subtraction 12. Geometry 13. Counting Money   14. Money   1. Measuring Length 2. Time, Graphs, and Data |

**Kid and Parent Friendly Content Standards for Mathematics**

*I Can Use Addition and Subtraction to Help Me Understand Math*

* I can use strategies to solve addition word problems.
* I can use strategies to solve subtraction word problems.
* I know my addition facts.
* I know my subtraction facts.
* I can group objects to tell if a number is odd or even.
* I can use repeated addition to help me understand multiplication.
* I can use strategies to solve addition word problems.
* I can use strategies to solve subtraction word problems.
* I know my addition facts.
* I know my subtraction facts.
* I can group objects to tell if a number is odd or even.
* I can use repeated addition to help me understand multiplication.

*I Can Use Number Sense and Place Value to Help Me Understand Math*

* I can understand and use hundreds, tens and ones.
* I can count to 1,000 using 1s, 5s, 10s and 100s.
* I can read and write numbers to 1,000 in different ways.
* I can compare three-digit numbers using <, =, and >.
* I can add and subtract three-digit numbers.
* I can add more than two big numbers.
* I can add and subtract with regrouping.
* I can add and subtract tens and hundreds in my head.
* I can explain why I need to use addition or subtraction to help me solve problems.

*I Can Use Measurement and Data to Help Me Understand Math*

* I can use different tools to measure objects.
* I can compare the length of an object using two different units of measurement.
* I can estimate the lengths of objects.
* I can compare the length of two different objects.
* I can use addition and subtraction to solve measurement problems.
* I can make and use a number line.
* I can tell time to five minutes.
* I can understand a.m. and p.m.
* I can count money to help me solve word problems.
* I can make a table to organize data.
* I can use a table to make a line plot.
* I can make a graph.

*I Can Use Geometry to Help Me Understand Math*

* I can name and draw shapes. (I know triangles, quadrilaterals, pentagons, hexagons and cubes.)
* I can find the area of a rectangle.
* I can divide shapes into equal parts.
* I can use fractions to describe the equal parts of a shape.

**The Mathematical Practices**

You’ll notice that your child will also be developing particular mathematical skills and habits of mind that are part of the Massachusetts Math Curriculum Frameworks. Called Standards for Mathematical Practices, these standards describe practices and abilities of very good math thinkers.

As your child works through homework exercises, you can help him/her develop and apply the eight Mathematical Practices by asking some of these questions:

## *Make sense of problems and persevere in solving them.*

* + What problem are you asked to solve?
  + Have you solved similar problems?
  + What is your plan for solving the problem?
  + Did you use a different method to check your answer?

## *Reason abstractly and quantitatively.*

* + Can you think of a number sentence (equation) to match the

story (situation)?

* + What do the numbers in the number sentence mean?
  + How are the facts in the problem related to one another?

## *Construct viable arguments and critique the reasoning of others.*

* + What does your answer mean?
  + How can you be sure that your answer is correct?

## *Model with mathematics.*

* + What number sentence (equation) describes this problem?
  + What numbers will you use to solve the problem?
  + How are the numbers in the problem connected?
  + Is your answer reasonable?
  + What does your solution represent?

***Use appropriate tools strategically.***

* + What tools can help you solve this problem?
  + Which tool is the most useful for this problem? Why is that your choice?
  + Did you begin by estimating the solution?

***Attend to precision.***

* + What do the symbols that you used mean?
  + What units of measure are you using?
  + Explain what [term from the lesson] means.

## *Look for and make use of structure.*

* + What do you notice about the solutions you've just completed?

**

*Websites for Kids*

* Free Math Games by Grade Level: http://www.math-play.com/
* Math Playground: <http://www.mathplayground.com/>
* Cool Math 4 Kids: <http://www.coolmath4kids.com/>
* Choose from addition, subtraction, multiplication and division at the top of the page: http://www.fun4thebrain.com/index.html
* Designed by Teachers: <http://www.kidsnumbers.com/>

## *Look for and express regularity in repeated reasoning.*

* + Are there shortcuts for solving similar problems?